fernald

Report

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Nov/Dec 2000

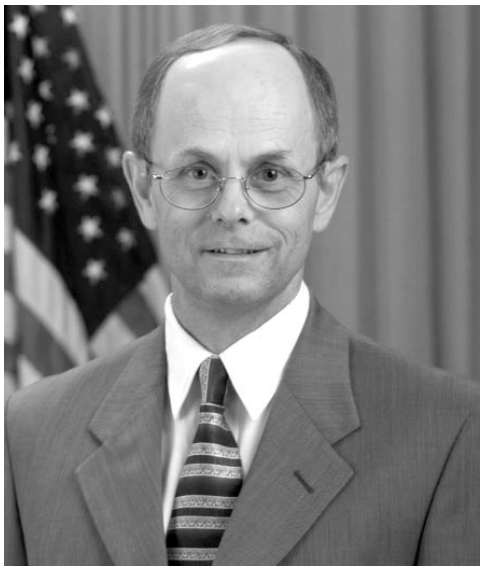
message from

Steve McCracken

Objectives and principles for continued success

I have been at the Fernald site now for about two months and I must say that things have been anything but dull. Since my arrival I have been spending my time getting to know the people and the issues.

As an introduction, prior to becoming the Director here at Fernald, I was the Project Manager of the Weldon Spring Site near St Louis, Missouri for 14 years. Weldon Spring was the sister plant to Fernald for uranium ore processing and operated from the mid fifties to the mid sixties. With the exception of the K-65 residues (silos 1 & 2), the contaminants at Weldon Spring were essentially the same as those found at Fernald. Weldon Spring is nearly complete now and I am excited to be picked to be the new Director here.



I am impressed with the amount of work that has been completed here at Fernald. Everyone involved seems to share a well deserved sense of pride and accomplishment.

Safety is obviously the number one priority as it should be. In meeting with representatives from the EPA, the State, and the community it is clear that important objectives should continue to be:

- Communication and responsiveness to community concerns
- Safety and quality
- Cost effective acceleration of the work

In future newsletters and through other communications I will share with you our progress in these objectives.

One of the things that will always be an impediment to progress is a lack of trust. My commitment to you is to always behave in a manner that is consistent with building and maintaining trust. In closing, I would also like to share with you some of the other principles that will guide my behavior. I will strive to:

- Value differences
- Engage people in problem solving, not just decision making
- Stand by my commitments
- Embrace the fact that technical solutions will not by themselves achieve understanding and acceptance
- And, try never to let indecision be an excuse for lack of progress

Your feedback and continuous involvement are important. If you feel as though I have ever dropped the ball in any way, please call me at (513) 648- 3101.

Steve McCracken
Director, DOE-Fernald

On the cover: *Two subcontractor employees lay rebar prior to a concrete pour for the Interim Storage Area pad, part of the scope of work for the Silos 3 Project (7325-d0204).*

Two projects completed in support of the On-Site Disposal Facility

The Soil and Disposal Facility Project has successfully completed two projects: (1) the expansion of the On-Site Disposal Facility Material Transfer Area (OMTA,) and (2) construction of the On-Site Disposal Facility (OSDF) Construction Laydown Area.

The OMTA Expansion is a radiologically-controlled, six-acre engineered area located between the North Railyard and the Haul Road. The design of the OMTA Expansion complies with regulatory requirements in regard to stormwater control, dust control, air monitoring and control of radiological contamination.

The OMTA Expansion will eliminate the build-up of boxed bulk debris from site closure projects and site cleanup activities. This expansion, along with the existing roll-off box transfer area, will support the D&D projects during the winter or other periods when the OSDF is closed.

The Construction Laydown Area is approximately four acres in size and is located north of the North Railyard. The Construction Laydown Area provides a staging area for bulk materials which will be used in the construction of the remaining OSDF liners and covers. However, the initial use will be as a staging area for the Cell 1 cap construction. Gravel and riprap (12-inch stone) for the biointrusion layer of the Cell 1 cap will be stockpiled in the area prior to the 2001 construction season.

Above: Roll-off boxes are used to transport debris from D&D projects. The expansion ensures efficient use of these boxes year round and will allow the FEMP to move to closure without purchasing additional boxes to store debris. (7466-d0106).

Contract awarded to build final cover (cap) for Cell 1

The contract to construct the cap for Cell 1 of the On-Site Disposal Facility (OSDF) was awarded to International Technology Group of Pittsburgh, Penn., in November. The cap construction will begin in the spring of 2001 and will be completed by the end of the year. Cell 1 reached its total capacity of over 314,000 cubic yards in September 2000.

The 8.75-foot thick cap will be constructed in layers of both natural and man-made materials. From top to bottom, the cap will consist of: vegetative/topsoil layer; granular filter; biointrusion barrier; cover drainage; geosynthetic liners; compacted clay; and contouring layer.

"DOE is excited about beginning this next phase of the OSDF Project. We have come a long way since the first waste was placed in Cell 1 in December 1997", commented Jay Jalovec, DOE-FEMP OSDF Project Manager.

Above: Out of the seven planned cells for the OSDF, three have been built. Cell 1 is full, Cell 2 is 51 percent filled and Cell 3 is 23 percent filled (7476-237).

Cleanup **Progress** Update

Waste Pits Remedial Action Project (WPRAP)

- Shipped Unit Train 30, which contained 6,645 tons of material to Envirocare of Utah.
- Developed plans for a five-phase operational test – Sequential Operations Program (SOP) – focused on gathering air monitoring and operational data, to assess unexpected elevated airborne radioactivity levels.
- Resumed processing of waste material.
- Resumed excavating and railcar loadout activities.

Silos Project

- Completed installation of the Transfer Tank Area (TTA) tank foundations.
- Submitted responses to the U.S. EPA and OEPA comments of the Silo 3 Project Remedial Design Package.
- Completed the concrete pour for the Interim Storage Area Pad and initiated pre-loading of the gantry foundations.

Above left: A subcontractor employee directs concrete into Tank Pad B, part of the Transfer Tank Area (7385-d0348).

Left: A heavy equipment operator uses a front-end loader to transfer certified waste material from the storage bins to the gondola railcars (6944-d1241).

Soil and Disposal Facility Project

- Completed work in the Borrow Area including excavation, screening, and stockpiling of clay material for the Cell 1 cap construction.
- Completed replacement planting in the Wetland Project.
- Completed the Active Flyash Pile pre-certification sampling and Stockpile #3 footprint certification sampling.
- Completed the placement of impacted material in the On-Site Disposal Facility (OSDF) for the season.
- Placed 138 roll-off boxes of debris in the new OSDF bulk debris staging/transfer area.

Aquifer Restoration/ Wastewater Project

- Completed construction of the Advanced Waste Water Treatment access Platform Project.
- Continued construction of the first phase of the Waste Pits Stormwater Reroute Project.
- Conducted a pump test to support the design of the Waste Storage Area Aquifer Restoration Module.
- Completed development of the aquifer pump test well in the Pilot Plant Drainage Ditch area and conducted a 7-day test of the aquifer pump well.
- Began direct push sampling of the aquifer in the South Field/Inactive Fly Ash Pile area in support of the design of South Field (Phase II) Aquifer Restoration Module.

Above: A quality control technician verifies a weld on the outer containment pipe of the leachate transmission system. The 10" containment pipe surrounds a 6" carrier pipe (7399-d202).

Left:
A subcontractor stabilizes the Borrow Area with a crusting agent, which helps prevent erosion, prior to the winter season (6319-d2688).

Cleanup **Progress** Update

Demolition Projects

Decontamination & Dismantlement (D&D)

- Plant 5 Complex —
  - Began release cleaning and continued encapsulating exterior transite in Building 5A.
  - Began removing exterior transite.
- Plant 6 Complex—
  - Continued interior demolition of Area 6A & Area 7.
- Building 28A, 28B and 28N —
  - Completed demobilization of 28A, 28B and 28N and area restoration.
- Facilities Shutdown
  - Continued isolation activities in the General Sump area.

Above left: A laborer uses a water hose to remove residual demolition debris from the concrete slab of the Industrial Relations Building (7349-d231).

Left: A MACTEC employee washes down the floor inside Plant 5 in preparation for future D&D activities. (6401-d655).

Waste Generator Services

- Thorium Legacy Waste Project —
  - Completed nine shipments of thorium residues to the Nevada Test Site.
- Nuclear Materials Disposition —
  - Continued shipments to Portsmouth, Ohio — total of 68.6 metric tons uranium (MTU) shipped in FY01 (85 percent completed to date).
  - Transmitted the draft shipping/receiving plan to private sector customers in support of the potential sale of 79 MTU of enriched recyclable metals.
- Waste Treatment and Storage—
  - Continued physical inspection of selected liquid mixed waste inventory to verify waste streams that can be treated on site at the Advanced Wastewater Treatment Facility.
  - Continued the Plant 1 Pad consolidation and inventory verification.
  - Initiated Uranium Waste Disposition Project activities, including characterization and visual inspections.
  - Began sampling of Batch 10 contents (approximately 19,700 gallons of liquid mixed waste) and bulking of other selected liquid mixed waste into Batch 11.

Above: A heavy equipment operator dumps waste soil from a metal box (7477-d29).

Fernald Shipments – October and November 2000

Contents / Destination	Shipment Mode	No. of Shipments during period	October Total	November Total	FY01 Total
Low-Level Waste (Nevada Test Site)		18	7,848 cu. ft.	9,221 cu. ft.	17, 069 cu. ft.
Liquid Mixed Waste - Toxic Substance Control Act Incinerator at Oak Ridge		0	0 gal.	0 gal.	0 gal.
Nuclear product/materials (Portsmouth)		35	122,654 net lbs. or 54.9 metric tons uranium	36,961 net lbs. or 13.7 metric tons uranium	159,614 net lbs. or 68.6 metric tons uranium
Waste Pits Project (Envirocare of Utah, Inc.)		1 unit train (62 railcars)	0 tons	6,645 tons	6,645 tons

Graphics # 5949

Stewardship in the Year 2000

The first year of the new millennium was witness to a great deal of activity within the DOE complex related to long-term stewardship (LTS). This activity involved many levels of government and many different public interest groups. At the Congressional level, the National Defense Authorization Act of FY2000 required a complex-wide "data call" and subsequent report designed to identify sites, define possible schedules, and project costs for LTS at locations under DOE's purview. At the same time, DOE-Headquarters established a national Office of LTS within the Environmental Management's Office of Science and Technology to study LTS issues and make general recommendations. As a result, each individual DOE site was required to begin preparation of a "Project Baseline Summary Code" (a tool for managing work scope and budget) specifically devoted to LTS, and will also be required to prepare a site-specific LTS plan.

DOE defines long-term stewardship (LTS) in part as "the physical controls, institutions, information and other mechanisms needed to insure protection of people and sites where DOE has completed or plans to complete cleanup..."

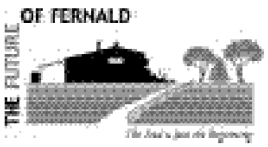
Complex-wide stakeholder groups have also gotten in on the act. For instance, the Environmental Site-Specific Advisory Boards across the nation, in which our local Fernald Citizens Advisory Board is a participant, have held two national workshops on LTS in the last 15 months, resulting in two sets of recommendations for DOE. These recommendations focus on funding, information/data management, clarification of roles and responsibilities, identification of future site stewards, strategies for public involvement and timing of stewardship-related decisions and activities.

At the local level, the Fernald CAB, along with the environmental group Fernald Residents for Environmental Safety & Health, the Fernald Community Reuse Organization and Fernald Living History, Inc., have sponsored three "Future of Fernald" workshops. The purpose of these workshops was to solicit input from a broad-based and diverse group of stakeholders regarding public use and access to Fernald after cleanup is complete, and to identify the possible forms such access might take. These workshops resulted in a "Future of Fernald Vision Statement" and suggested steps for implementing that vision, as well as the preparation of possible public-access scenarios. Gathering and incorporating this public use input is the final step in defining LTS requirements for restored areas of the site.

DOE and Fluor Fernald have recently issued a draft LTS Strategic Plan that documents existing site commitments, describes major Fernald-specific issues, incorporates stakeholder input and commits to ongoing public involvement. This plan, along with the scenarios developed at the Future of Fernald workshops, will feed into a Comprehensive Site-Specific Stewardship Plan scheduled for draft release in mid-2001. This comprehensive look at LTS will provide as much detail as possible on funding, stewardship of future public access features and amenities, the possible identity of a long-term steward for the site, On-Site Disposal Facility monitoring and maintenance, and other information specific to maintenance of natural resource restoration features. This extensive view of the site's future is slated to provide much more detailed input from the Future of Fernald process, potentially showing the location of trails, Native American reburial sites, and possibly even an educational/cultural facility.

Fernald is on the leading edge of LTS planning in the DOE complex. Fernald is pursuing technologies, funding and public input so that LTS strategies will lead to the maintenance of a safe, protective end-state at Fernald that responds to the needs and desires of Fernald stakeholders.

A STAKEHOLDER VISION FOR THE FUTURE OF FERNALD



Adopted by Fernald Stakeholders at the Third Future of Fernald Workshop, 9/26/00

VISION STATEMENT

Fernald Stakeholders envision a Future for the Fernald property that creates a federally-owned regional destination for educating this and future generations about the rich and varied history of Fernald. We envision a community resource that serves the ongoing information needs of area residents, education needs of local academic institutions, and reinterment of Native American remains. We envision a safe, secure, and partially accessible site, integrated with the surrounding community that effectively protects human health and the environment from all residual contamination and fully maintains all aspects of the ecological restoration.

ACHIEVING THE VISION

We believe that this vision can only be achieved through cooperation among all stakeholders and by recognizing the need to identify the funding and incorporate planning and implementation of future uses with on-site remediation. To achieve this vision, we would like to see the following elements implemented on the Fernald Site:

- Adequate property to provide reinterment of Native American remains in a protected park-like setting that recognizes the spiritual nature of this activity.
- Regulated access to the ecologically restored areas of the site through a series of marked and annotated trails that can be used for hands-on learning and discovery of indigenous plants and animals.
- Development of an on-property educational center that provides for the following:
  - A complete history of the Fernald area beginning with the first Native American residents continuing through the Cold War years when the Fernald site produced feed materials for America's nuclear weapons arsenal, and culminating with the current efforts of site remediation and ecological restoration.
  - Museum-quality displays and related educational programming on the role of Fernald in the Cold War and the many impacts of the production of feed materials for nuclear weapons on the lives of area residents and Fernald site workers, as well as the broader social and cultural impacts on the surrounding community.
  - Museum-quality displays and related educational programming on the history of Native Americans in the Fernald region.
  - Permanent housing of the public reading room containing copies of the public record of Fernald production and remediation activities and Fernald Living History materials.
  - Classrooms and auditorium space.
  - Environmental research and groundwater education facilities.
  - Expedient access to environmental monitoring results.
  - Detailed descriptions and displays on the Fernald environmental remediation process and results.

Shooting for the STAR

Once again, Fernald has taken another step to show that safety is first at the site. In October, a review team made up of DOE representatives from the Department of Energy Headquarters (DOE-HQ), the Ohio Field Office, West Valley, Fernald and representatives from the Occupational Safety and Health Administration (OSHA) visited Fernald to review the Voluntary Protection Program (VPP)application that was submitted to the DOE-HQ in June.

The DOE VPP is a program that seeks to mitigate risk in the workplace by encouraging Safety & Health programs that demonstrate a level of excellence that can only be achieved through full involvement and commitment by management and employees. The VPP program is divided into five elements: Management Leadership; Employee Involvement; Hazard Prevention & Control; Worksite Analysisand Safety & Health Training. The review team was responsible for evaluating the program elements that were outlined in the VPP application. The review consisted of document reviews, a formal interview process and walk-thrus of the site. The goal for the site is to achieve STAR status, which demonstrates the ability to meet all of the DOE VPP requirements.

During the closeout meeting to discuss the findings of the review, the team indicated that it was particularly impressed with employee involvement and the very evident management commitment to safety. The findings of the review were taken back to DOE-HQ for evaluation. Upon final evaluation, the site will be notified as to whether they met they requirements to be included into the DOE VPP program.

Above: Dave Painter (left), Fluor Fernald team member escorts members of the VPP review team to oversee a concrete pour activity that was taking place for the Silos 1 & 2 project (7490-d0002).

Diversity Counts

The Fernald Diversity Council was formed to help create a more inclusive workplace atmosphere through education that utilizes the talents and capabilities of a diverse workforce to enhance and achieve the DOE and Fluor Fernald mission.

The council meets every fourth Tuesday at 1 p.m. in room 252 of the Health and Safety Building. We invite and encourage your participation.

Above: The Diversity Council sponsors a variety of events throughout the year including activities celebrating Native American Heritage Month (7253-d26).

Recent Tours

Joy Mulinex from Senator DeWine's Washington D.C. office recently visited both the Fernald and Mound sites. Before taking a tour of Fernald, Johnny Reising, Associate Director of Environmental Management at Fernald, gave her a detailed overview of the site.

Left: Attending the DOE briefing for Ms. Mulinex were representatives from the site's unions and the Ohio Environmental Protection Agency, plus Jack Craig, Deputy Manager of the Ohio Field Office and John Bradburne, president and CEO of Fluor Fernald (6810- d0401).

In September, several representatives from regulatory agencies across the country were in Cincinnati for a conference and extended their stay by visiting the Fernald site at the invitation of Tom Schneider, Ohio EPA Office of Federal Facilities Oversight. The day-long visit included a tour of the site, stopping at the Waste Pits Remedial Action Project for closer observations of the control room and dryer operations.

Right:From DOE, Susan Brechbill, Manager of the Ohio Field Office and Johnny Reising, Associate Director of Environmental Management at Fernald, accompanied Mr. Schneider and the visitors on the tour (6810-d0419).

For more info about long-term stewardship (LTS):

- Go to the Internet at http://lts.apps.em.doe.gov
- Contact the local DOE project manager at kathi.nickel@fernald.gov or 513-648-3166
- Search the Fernald Public Environmental Information Center, 10995 Hamilton-Cleves Highway, Harrison, OH, 513-648-7480
- Write to Steven Livingstone, LTS Special Assistant, U.S. Dept. of Energy, P. O. Box 45079, Washington, D.C. 20026-5079

New documents added to the Public Environmental Information Center

The following information was added to the Public Reading Room, Administrative Record files and Post Record of Decision files at DOE's Public Environmental Information Center (PEIC):

- Waste Pits Remedial Action Project
  - DOE Letter: Pit 1 Stockpile

- Soil & Disposal Facility Project
  - Certification Report for Area 1, Phase II
  - OEPA Letter: Conditional Approval Revised On-Site Disposal Facility Phase III Final Package
  - Project Specific Plan for Conducting Direct-Push Sampling in the Former Inactive Flyash Pile / South Field Area

- Silos Project
  - USEPA Letter: Responses to the U.S. EPA and Ohio EPA Comments on the Remedial Design Package for the Silo 3 Project
  - USEPA Letter: Approval of Remedial Design Work Plan for the Operable Unit 4 Silos 1 and 2 Project
  - Fernald Silos 1 and 2 Accelerated Waste Retrieval Strategy Critical Analysis Team Report

- Aquifer Restoration Project
  - OEPA Letter: Approval May and June 2000 Re-Injection Demo Reports
  - USEPA Letter: Re-Injection Well Treatment
  - OEPA Letter: Approval of Project Specific Plan for Pilot Plant Drainage Ditch Pump Test
  - July 2000 Re-Injection Operating Report
  - August 2000 Re-Injection Operating Report

Note: This does not represent the complete list of new documents added to the PEIC for the months of November and December. Contact the PEIC, 513-648-7480 for a complete list of new documents.

Fernald Report
Gary Stegner, Public Affairs Officer
U.S. Department of Energy
Fernald Environmental Management Project
P.O. Box 538705, Cincinnati, OH 45253-8705
Telephone: 513-648-3153,
E-Mail: **gary.stegner@fernald.gov**
Fernald Web site: **www.fernald.gov**